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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,118	01/03/2002	Terry J. Logan	10465/45	1036

23838 7590 03/13/2003

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EXAMINER

RINEHART, KENNETH

ART UNIT

PAPER NUMBER

3749

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/034,118

Applicant(s)

LOGAN ET AL.

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18, 20-23, 26-28, 30-32, 34-54, 59-61, 64-70 and 72-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-18, 35-51, 59-61, 64-67, 72 and 75-77 is/are allowed.
- 6) ☒ Claim(s) 1-10, 20-23, 26-28, 30-32, 34, 52-54, 68-70, 73 and 74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 11/29/02 have been fully considered but they are not persuasive. The applicant first argues that Smith et al does not disclose a coal burner of a coal burning power plant. The applicant is correct, since a close reading of the examiner's rejection will illustrate that Smith was not used to disclose this feature. Smith et al discloses a burner of a power plant. It is Rivers which is used to teach coal. The applicant further argues that the passage cited does not suggest combining the organic waste with fossil fuels such as coal. The examiner agrees since the passage cited in the rejection was not used to teach combining organic wastes with fossil fuels such as coal. The coal of the cited passage was used to modify the burner and power plant of Smith and not used to teach combining organic wastes with fossil fuels such as coal. The applicant also argues that Rivers does not fairly suggest mixing a coal combustion by-product with organic waste. This statement is correct since it is Smith that discloses this feature. In Smith the coal combustion by product is char. The organic waste is waste water. Regarding the liberation of ammonia, col. 12 lines 24-30 discuss how the ammonia is removed from the waste water. Regarding introducing the ammonia into a burner, Smith discloses this. The ammonia is sent to the gas turbine combustor 36, fig. 3. As discussed earlier Rivers was used to teach the coal. Regarding claim 20, after mixing the organic waste (waste water) coal combustion by product (char), alkaline additive by product (lime) into a burner (36, fig. 3) of a power plant (17, fig. 3), after mixing the three components it is the ammonia by product which is sent to the burner. Regarding claims 73 and 74, claims in a pending application should be given their broadest reasonable interpretation. The liberation limitation is contained in the Smith reference as

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the ammonia is removed from the waste water. Regarding the coal aspect of this limitation that has been dealt with earlier in this response. Regarding claim 26, the applicant appears to argue that Smith does not teach mixing coal combustion by product with organic waste. It is the examiner's contention that Smith teaches mixing char, which is a coal combustion by product, with wastewater which is an organic waste. The applicant also argues that Smith does not teach the combustion of coal. This is correct as Lissianski et al is used to teach the combustion of coal. Regarding claim 52, the applicant states that neither Lissianski et al nor Khan nor the combination thereof fairly teach or suggest mixing of a coal combustion by product with organic waste and feeding that mixture to a coal burner of a coal burning power plant. It is the examiners contention that Lissianski et al in view of Khan in combination disclose and teach the limitation, since one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. It is the examiner's contention that ash is a coal combustion by product and that a individual of ordinary skill in the art would be motivated to combine the references so that sludge would be disposed of without contaminating the environment. Regarding claims 21, 22, 30-32, 52-54 and 68-70, the coal combustion by product is ash and the organic waste is trash and the figure clearly shows the two components are combined. Claims in a pending application should be given their broadest reasonable interpretation. The examiner contends that an individual of ordinary skill in the art would incorporate a power plant and pulverized fuel as taught by Lissianski in order to

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take advantage of the heat generated by the system of Strohmeyer to produce power and create a more energy efficient system. Regarding claims 1, 6, 8-10, 21-23, 26-28 and 34 of Strohmeyer in view of Smith et al and Lissianski et al. The applicant states that Strohmeyer does not teach mixing of organic waste with coal combustion by product and the liberation of ammonia by mixing organic waste and a coal combustion by product. This is correct, as Smith was used to teach these limitations. Smith teaches a coal combustion product (char). Char, which is carbon generated by burning, is a coal combustion product. Regarding the liberation of ammonia limitation, claims in a pending application should be given their broadest reasonable interpretation. Regarding the limitation of coal and a power plant it is Lissianski which teaches these limitations as discussed above. Regarding claims 34, the applicant makes similar arguments as discussed above. In this case it is the primary reference which discloses the coal and Smith which teaches the mixture of organic waste with one or more coal combustion by products and one or more alkaline additives.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-9, 20, 73, 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al in view of Rivers et al. Smith et al discloses mixing organic waste (21, 22, fig. 3), one or more coal combustion by products (col. 9, line 48-54), and one or more alkaline additives (13, fig. 13) to form an organic waste/coal combustion by products/alkaline additive by

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product mixture (13, fig. 3) and causing ammonia to be released from said organic waste (col. 12, lines 24-41), introducing said liberated ammonia into a ... burner of a ... burning power plant (201, 36, 17, fig. 3, col. 12, lines 36-39), one or more alkaline additives is selected from the group consisting of lime, calcium hydroxide, limestone cement kiln dust, and lime kiln dust (col. 11, lines 40-43), said mixing further includes mixing lime with the organic waste, coal combustion by products, and one or more alkaline additives (col. 11, lines 40-43), said organic wastes comprises waste selected from the group consisting of sewage sludges, animal manures, pulp and paper waste, fermentation waste, food waste, paper and cardboard, and other industrial organic waste (col. 1, lines 59-67), said coal combustion by products comprise at least one by product selected from the group consisting of fly ash, fluidized bed ash, flue gas desulfurization by products, lime, calcium hydroxide, calcium carbonates, and mixtures thereof (39, fig. 3), the organic waste/coal combustion by products/alkaline additive by product mixture has a PH of at least 9.5 (col. 11, line 18), mixing the organic waste/coal combustion by products/alkaline additive byproduct mixture with coal (91, fig. 3, col. 12, line 6), the coal is pulverized coal (col. 12, lines 5-6), liberating ammonia from organic waste (col. 12, lines 24-30); mixing organic waste (21, 22, fig. 3), one or more coal combustion by products (col. 9, line 48-54), and one or more alkaline additives (13, fig. 13) to form an organic waste/coal combustion by products/alkaline additive by product (col. 12, lines 24-41), feeding the organic waste/coal combustion by products/alkaline additive by product into a ... burner of a ... burning power plant (201, 36, 17, fig. 3, col. 12, lines 36-39). Smith et al discloses applicant's invention substantially as claimed with the exception of coal. Rivers et al teaches coal (col. 4, lines 21-27) for the purpose of using existing pulverized coal boilers with resultant fuel cost and capital

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savings. It would have been obvious to one of ordinary skill in the art to modify Smith et al by including coal as taught by Rivers et al for the purpose of using existing pulverized coal boilers with resultant fuel cost and capital savings.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lissianski et al in view of Smith et al. Lissianski et al discloses a coal burner of a coal burning power plant (col. 5, line 58-67), a coal feed supplying coal to said coal burner, coal (fig. 1). Lissianski et al discloses applicant's invention substantially as claimed with the exception of an ammonia feed to said ... burner comprising ammonia liberated from organic waste upon mixing organic waste, one or more coal combustion by products and one or more alkaline additives. Smith et al teaches an ammonia feed to said ... burner (201, fig. 3) comprising ammonia liberated from organic waste upon mixing organic waste (21, 22, fig. 3), one or more coal combustion by products (col. 9, lines 48-54) and one or more alkaline additives (13, fig. 13) for the purpose of preventing the gas from escaping to the environment. It would have been obvious to one of ordinary skill in the art to modify Lissianski et al by including liberated from organic waste upon mixing organic waste, one or more coal combustion by products and one or more alkaline additives as taught by Smith et al for the purpose of preventing the gas from escaping to the environment.

Claims 52, 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lissianski et al in view of Khan. Lissianski et al discloses a, ... coal, coal ... of a coal burning power plant (col. 5, line 58-67). Lissianski et al discloses applicant's invention substantially as claimed with the exception of mixing organic waste, one or more coal combustion by products to form an organic waste coal combustion by products mixture into a ... burner..., a feed of an organic waste coal combustion by products mixture to said ... burner, comprising organic waste and one

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or more coal combustion by products mixed together. Khan teaches mixing organic waste, one or more coal combustion by products to form an organic waste coal combustion by products mixture into a ... burner... (col. 7, lines 40-49), a feed of an organic waste coal combustion by products mixture to said ... burner, comprising organic waste and one or more coal combustion by products mixed together for the purpose of disposing of sludge without contaminating the environment (col. 7, lines 40-49). It would have been obvious to one of ordinary skill in the art to modify Smith by including mixing organic waste, one or more coal combustion by products to form an organic waste coal combustion by products mixture into a ... burner..., a feed of an organic waste coal combustion by products mixture to said ... burner, comprising organic waste and one or more coal combustion by products mixed together as taught by Khan for the purpose of disposing of sludge without contaminating the environment.

Claims 21, 22, 30-32, 52-54, 68-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmeyer in view of Lissianski et al. Strohmeyer discloses mixing organic waste (col. 3, lines 8-10), one or more coal combustion by products (col. 5, line 23-29), and one or more alkaline additives (col. 3, line 7) to form an organic waste/coal combustion by products/alkaline additive by product with coal (col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7); and feeding the organic waste/coal combustion by products/alkaline additive by product and coal into a coal burner of a coal burning ... (38, 30, fig. 1), a feed of an organic waste (col. 3, lines 8-10)/coal combustion by products (col. 5, line 23-29)/ alkaline additive mixture to said coal burner (col. 3, line 7), comprising organic waste, one or more combustion by products and one or more alkaline additives mixed together (38, fig. 1), said feed of an organic waste/ coal combustion by products/alkaline additive mixture further includes coal (col. 3, lines 5-10), (col.



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5, line 23-29), mixing organic waste (col. 3, lines 8-10), one or more coal combustion by products (col. 5, line 23-29), to form an organic waste/coal combustion by products mixture (col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7), combining the organic waste/coal combustion by product mixture with coal (col. 3, lines 5-10, col. 5, lines 23-29); and feeding the organic waste/coal combustion by-products mixture and coal into a coal burner of a coal burning ... (38, fig. 1), said organic waste coal combustion by product mixture further comprises one or more non-alkaline additives (col. 3, line 5), a coal burner of a coal burning ... (30, fig. 1), a feed of an organic waste coal combustion by products mixture to said coal burner, comprising organic waste and one or more coal combustion by products mixed together (col. 3, lines 5-10, col. 5, lines 23-29), said feed of an organic waste coal combustion by products mixture further includes coal (col. 3, lines 5-10, col. 5, lines 23-29) . Strohmeyer discloses applicant's invention substantially as claimed with the exception of power plant, pulverized coal. Lissianski et al teaches power plant (col. 5, line 62), pulverized coal (col. 1, line 28) for the purpose of providing a more energy efficient system. It would have been obvious to one of ordinary skill in the art to modify Strohmeyer by including power plant, pulverized coal as taught by Lissianski et al for the purpose of providing a more energy efficient system.

Claims 1, 6, 8-10, 21-23, 26-28, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmeyer in view of Smith et al and Lissianski et al. Strohmeyer discloses coal, coal burning (col. 3, line 5), the one or more coal combustion by products include fly ash (col. 5, lines 23-34), mixing the organic waste/coal combustion by product alkaline additive by product mixture with coal (col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7), feeding the mixture formed by mixing the by product mixture with coal into said coal burner (38, fig. 1),

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combining the organic waste coal combustion by products alkaline additive by product with coal (38, fig. 1, col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7), feeding the organic waste coal combustion by products alkaline additive by product and coal into a coal burner of a coal burning ... (col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7), a coal feed supplying coal to said coal burner (37, fig. 1), the coal feed comprises coal and a mixture of organic waste, one or more coal combustion by products and one or more alkaline additives (38, fig. 1, col. 3, lines 8-10, col. 5, lines 23-29, col. 3, lines 7), a coal burner of a coal burning ... (38, 30, fig. 1), a coal feed supplying coal to said coal to said coal burner, which coal feed comprises coal and the mixture of organic waste (col. 3, lines 5-10) one or more coal combustion by products (col. 5, line 23-29) and one or more alkaline additives (col. 3, line 7) . Strohmeyer discloses applicant's invention substantially as claimed with the exception of mixing organic waste, one or more coal combustion by products, and one or more alkaline additives to form an organic waste/coal combustion by products/alkaline additive by product mixture and causing ammonia to be released from said organic waste, introducing said liberated ammonia into a ... burner, power plant, pulverized coal, said mixing further includes liberating ammonia from the organic waste and introducing the ammonia into the ... burner, an ammonia feed to said ... burner comprising ammonia liberated from organic waste upon mixing organic waste, one or more coal combustion by products and one or more alkaline additives, power plant. Smith et al teaches mixing organic waste (21, 22, fig. 3), one or more coal combustion by products (col. 9, line 48-54), and one or more alkaline additives (13, fig. 13) to form an organic waste/coal combustion by products/alkaline additive by product mixture (13, fig. 3) and causing ammonia to be released from said organic waste (col. 12, lines 24-41), introducing said liberated ammonia into a ...

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burner (36, fig. 3), said mixing further includes liberating ammonia from the organic waste and introducing the ammonia into the ... burner (col. 12, lines 24-41, 36, fig. 3), an ammonia feed to said ... burner (201, fig. 3) comprising ammonia liberated from organic waste upon mixing organic waste (21, 22, fig. 3), one or more coal combustion by products (col. 9, lines 48-54) and one or more alkaline additives (col. 12, lines 24-41, 13, 36, fig. 3) for the purpose of preventing the gas from escaping to the environment. It would have been obvious to one of ordinary skill in the art to modify Strohmeyer by including mixing organic waste, one or more coal combustion by products, and one or more alkaline additives to form an organic waste/coal combustion by products/alkaline additive by product mixture and causing ammonia to be released from said organic waste, introducing said liberated ammonia into a ... burner, said mixing further includes liberating ammonia from the organic waste and introducing the ammonia into the ... burner, an ammonia feed to said ... burner comprising ammonia liberated from organic waste upon mixing organic waste, one or more coal combustion by products and one or more alkaline additives as taught by Smith for the purpose of preventing the gas from escaping to the environment.

Strohmeyer in view of Smith et al discloses applicant's invention substantially as claimed with the exception of power plant, pulverized coal. Lissianski et al teaches power plant (col. 5, line 62), pulverized coal (col. 1, line 28) for the purpose of providing a more energy efficient system. It would have been obvious to one of ordinary skill in the art to modify Strohmeyer by including power plant as taught by Lissianski et al for the purpose of providing a more energy efficient system.

***Allowable Subject Matter***

Claims 11-18, 35-51, 59-61, 64-67, and 72, 75-77 are allowed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30-4:30 M-F.

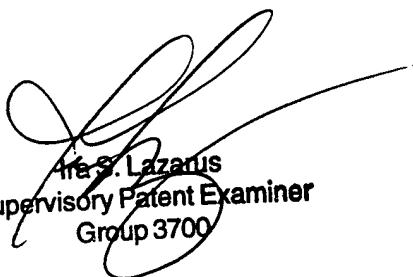
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-308-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

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March 12, 2003



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